Abstract:

Introduction and Objective: Diabetes is a metabolic disease with chronic hyperglycemia. Due to the adverse effects of glucose-lowering drugs, try to use alternative medicines, including herbal medicines has increased. Studies show the importance of oxidative stress in diabetes mellitus pathogenesis. Due to antioxidant compounds Chevil done a study to determine the effects of Chevil hydroalcoholic extract on biochemical parameters and liver function in diabetic male rats.

Materials and Methods: In this study, 54 male rats were divided into 6 groups(n=9): control, diabetic, diabetic groups treated 200,400 and 800 mg/kg body weight of Chevil extract, respectively and the diabetic rats treated with 150 mg/kg body weight of metformin. For induction of diabetes was used intraperitoneal injection of alloxan. At the end of the study, fasting glucose, cholesterol, triglyceride, HDL-C, LDL-C, aspartate aminotransferase, alanine aminotransferase in blood and Superoxide Dismutase, catalase, glutathione peroxidase and malondialdehyde in liver tissue were measured.

Results: In the diabetic groups treated with Chevil significant reduction in fasting glucose, cholesterol, triglycerides, LDL-C, aspartate aminotransferase, alanine aminotransferase, malondialdehyde (serum and tissue) and significantly increased in HDL-C, Superoxide Dismutase, catalase, glutathione peroxidase compared with the control group was observed.

Conclusion: The results showed that Chevil hydroalcoholic extract have good effect in reducing risk factors in diabetic patients and strengthen the antioxidant enzymes in these groups.

Keywords: diabetes, alloxan, Chevil, biochemical factors, liver disorders, male rats